

THERE IS CLAIMED:

1 1. A system for providing signals to a television
2 receiver of a user within a television network, the
3 system comprising: an intercept unit connected to a
4 telephone network and obtaining data concerning a
5 telephone call being made to a user's telephone number,
6 communicating the data over the television network to the
7 television receiver of the user, wherein the television
8 receiver of the user displays the data concerning the
9 telephone call on a television screen associated with the
10 television receiver of the user.

1 2. A system according to claim 1, further comprising:
2 a service transmission system communicating with the
3 television network;
4 the intercept unit communicating the data concerning the
5 telephone call to the service transmission system;
6 and,
7 the service transmission system formatting the data into
8 a television signal and communicating the television
9 signal over the television network to the television
10 receiver of the user.

1 3. A system according to claim 2, in which the
2 intercept unit communicates data to the service

3 transmission system via one of the Internet and a
4 telecommunications network.

1 4. A system according to claim 2, further comprising a
2 database cross-referencing user telephone numbers with
3 data on the television receiver of the user; the
4 intercept unit communicating the telephone number of the
5 user to the service transmission system; and the service
6 transmission system accessing the database to obtain the
7 data on the television receiver of the user, and using
8 the data on the television receiver of the user to
9 communicate the television signal to the television
10 receiver of the user.

1 5. A system according to claim 2, wherein the service
2 transmission system embeds the data concerning the
3 telephone call within a television program to be
4 broadcast to the television receiver of the user, the
5 data concerning the telephone call being displayed within
6 the television program on the television screen of the
7 user.

1 6. A system according claim 2, wherein the service
2 transmission system communicates the television signal to
3 the user's television receiver separately to broadcasts
4 of television programs, the user's television receiver

5 displaying the data concerning the telephone call over
6 any displayed television program displayed on the
7 television screen.

1 7. A system according to claim 2, wherein the data
2 concerning a telephone call includes a caller's calling
3 line indicator.

1 8. A system according to claim 2, wherein the intercept
2 unit obtains further data on a caller in dependence on
3 the obtained data concerning the telephone call and
4 communicates the data concerning the telephone call and
5 the further data to the service transmission system for
6 communication to the user's television receiver.

1 9. A system according to claim 2, wherein the service
2 transmission system obtains further data on a caller in
3 dependence on the data concerning the telephone call
4 communicated by the intercept unit and formats the data
5 concerning the telephone call and the further data into a
6 television signal for communication to the user's
7 television receiver.

1 10. A system according to claim 2, wherein the service
2 transmission system obtains further data on a caller in
3 dependence on the data concerning the telephone call

09947896-07401

4 communicated by the intercept unit and replaces the data
5 concerning the telephone call with the further data prior
6 to formatting the data into a television signal for
7 communication to the user's television receiver.

1 11. A system according to claim 9, further comprising a
2 database of information on known callers, the service
3 transmission system obtaining the further data from the
4 database of information on known callers.

1 12. A system according to claim 9, wherein the service
2 transmission system communicates with a telephone service
3 provider's database and obtains the further data from the
4 telephone service provider's database.

1 13. A system according to claim 2, wherein the receiver
2 accepts an input from a user in response to the data
3 displayed on the television screen and communicates the
4 input to the service transmission system, the service
5 transmission system managing the call in dependence on
6 the input.

1 14. A system according to claim 13, wherein the input is
2 a command to redirect to a voicemail system, the service
3 transmission system communicating with the intercept unit
4 to redirect the call to the voicemail system.

1 15. A system according to claim 13, wherein the input is
2 a command to send a message to a caller, the service
3 transmission system communicating with a messaging system
4 to send the message to the caller.

1 16. A system according to claim 15, wherein the message
2 is one of: an instant message or an email.

1 17. A system according to claim 1, wherein the
2 television receiver is a digital television decoder.

1 18. A system according to claim 17, wherein the decoder
2 is a set-top-box.

1 19. A method of providing signals to television
2 receivers of selected users within a television network,
3 the method comprising:

4 obtaining data at a telephone system on telephone calls
5 being made to a user's telephone number;
6 communicating the data over the television network to
7 the television receiver of the user; and,
8 displaying the data on an associated television screen.

1 20. A method according to claim 19, in which the step of
2 communicating the data further comprises formatting the

3 data into a television signal and communicating the
4 television signal across the television network to the
5 television receiver of the user.

1 21. A method according to claim 20, further comprising
2 the step of cross-referencing the user's telephone number
3 with data on the television receiver of the user, wherein
4 the step of communicating the television signal to the
5 television receiver further comprises the step of
6 communicating the television signal to the television
7 receiver of the user using the data on the receiver.

1 22. A method according to claim 20, wherein the step of
2 formatting the data into a television signal comprises
3 the step of embedding the data within a television
4 program to be broadcast to the television receiver of the
5 user.

1 23. A method according to claim 20, further comprising
2 the steps of obtaining further data on a caller in
3 dependence on the obtained data and formatting the data
4 and the further data into a television signal for
5 communication to the receiver.

1 24. A method according to claim 20, further comprising
2 the steps of obtaining further data on a caller in

3 dependence on the obtained data, discarding the data and
4 formatting the further data into a television signal for
5 communication to the receiver.

1 25. A method according to claim 23, further comprising
2 the step of maintaining a database of information on
3 known callers, wherein the step of obtaining further data
4 comprises the step of obtaining further data from the
5 database of information on known callers.

1 26. A method according to claim 23, wherein the step of
2 obtaining further data comprises the steps of accessing a
3 telephone service provider's database and obtaining the
4 further data from the telephone service provider's
5 database.

1 27. A method according to claim 19, further comprising
2 the steps of accepting an input from a user in response
3 to the data displayed on the television screen and
4 managing the call in dependence on the input.

1 28. A method according to claim 27, wherein the step of
2 managing comprises at least one of the steps of:
3 redirecting the call to a voicemail system, sending an
4 instant message to the caller or sending an email to the
5 caller.

1 29. A computer program product for supporting improved
2 incoming call indications, comprising software
3 instructions on a computer readable medium, the software
4 instructions being adapted to enable computer systems to
5 operate according to a method comprising:

6 obtaining data at a telephone system on telephone calls
7 being made to a user's telephone number;
8 communicating the data over the television network to
9 the receiver of the user; and,
10 displaying the data on an associated television screen.

1 30. A computer program product comprising software
2 instructions on a computer readable medium, the
3 instructions enabling a system of computers to provide
4 signals to televisions of selected users within a
5 television network, and comprising instructions for:

6 enabling a computer to obtain data at a telephone system
7 on telephone calls being made to a user's telephone
8 number;
9 enabling the computer to communicate the data to a
10 receiver of the user; and,
11 enabling the receiver to display the data on an
12 associated television screen.

1 31. A computer program product according to claim 29, in
2 which the instructions for enabling the computer to
3 communicate the data further comprises instructions for
4 enabling the computer to format the data into a
5 television signal and instructions for enabling the
6 computer to communicate the television signal across the
7 television network to the receiver of the user.

1 32. A computer program product according to claim 30,
2 further comprising instructions for enabling the computer
3 to cross-reference the user's telephone number with data
4 on the receiver of the user, wherein the instructions for
5 enabling the computer to communicate the television
6 signal to the receiver further uses the data on the
7 receiver.

1 33. A computer program product according to claim 31,
2 wherein the instructions for enabling the computer to
3 format the data into a television signal embeds the data
4 within a television program to be broadcast to the
5 receiver of the user.

1 34. A computer program product according to claim 31,
2 further comprising instructions for enabling the computer
3 to obtain further data on a caller in dependence on the

4 obtained data, wherein the instructions for enabling the
5 computer to format the data formats the data and the
6 further data into a television signal for communication
7 to the receiver.

1 35. A computer program product according to claim 31,
2 further comprising instructions for enabling the computer
3 to obtain further data on a caller in dependence on the
4 obtained data, wherein the instructions for enabling the
5 computer to format the data discard the data and format
6 the further data into a television signal for
7 communication to the receiver.

1 36. A computer program product according to claim 31,
2 further comprising instructions for enabling the computer
3 to maintain a database of information on known callers,
4 wherein the device for enabling the computer to obtain
5 further data obtains the further data from the database.

1 37. A computer program product according to claim 31,
2 wherein the device for enabling the computer to obtain
3 further information accesses a telephone service
4 provider's database to obtain the further data.

1 38. A computer program product according to claim 30,
2 further comprising a device for enabling the receiver to

3 accept an input from a user in response to the data
4 displayed on the television screen and a device for
5 enabling the computer to manage the call in dependence on
6 the input.

1 39. A user interface for a television, comprising:
2 an object for receiving an incoming telephone call
3 indication signal; and
4 a display region, responsive to said incoming telephone
5 call indication signal, displaying an incoming
6 telephone call indication based on said incoming
7 telephone call indication signal.

1 40. The user interface as set forth in claim 39, further
2 comprising a user activatable region for sending a prior
3 call information access request.

1 41. The user interface as set fourth in claim 40,
2 further comprising:
3 an object for receiving a prior call information signal;
4 and
5 a display region displaying prior call information based
6 on said prior call information signal.

1 42. The interface as set fourth in claim 39, wherein the
2 incoming call indication signal comprises system-provided

3 incoming call information and supplemental incoming call
4 information.

1 43. The interface as set fourth in claim 42, further
2 comprising a display region displaying said supplemental
3 incoming call information.

1 44. The interface as set fourth in claim 39, further
2 comprising a user activatable region for indicating a
3 call management function relating to incoming telephone
4 calls of said user.